DETAILED ACTION

Examiner's Remarks

1.   The period for reply is hereby restarted pursuant to MPEP 710.06 because the previous office action contained an error in the citation of a reference used in a prior art rejection affecting the applicant's ability to properly respond. The error was called to the Examiner's attention via a telephonic interview with the applicant on 6/24/08.

Continued Examination Under 37 CFR 1.114

2.   A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/22/08 has been entered.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically
disclosed or described as set forth in section 102 of this title, if the
differences between the subject matter sought to be patented and the prior
art are such that the subject matter as a whole would have been obvious at
the time the invention was made to a person having ordinary skill in the
art to which said subject matter pertains. Patentability shall not be
negatived by the manner in which the invention was made.

4.   Claims 1-13 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Choquier et al. (U.S. Patent No. 5,951,694

hereinafter "Choquier") in view of Goldszmidt et al. (U.S.

Patent No. 7,054,943 hereinafter "Goldszmidt").

5.   Referring to program claims 1 and 7, method claim 6 and 13,

machine readable medium claim 8, and apparatus claim 9, Choquier

teaches a method, apparatus and program causing an information

processing device (administration servers 134, see lines 4-12 of

column 24) to execute a service managing method accommodating a

plurality of service servers each rendering a service via a

network in response to a service request from a client, and

distributing the service request to the plurality of service

servers (see lines 26-35 of column 23), said method comprising:

    managing the plurality of service servers by dividing the

service servers to define a plurality of groups of service

servers and dynamically shift service servers among the

plurality of groups and render a service as a service quality of

a group to which the shift is made (see lines 36-48 of column 23); and

reducing a load on a service server within any of the plurality of groups by using at least one service server with the lightest load as the service server within any of the plurality of groups, when the load on the service server within any of the plurality of groups increases, and a quality level to be rendered by any of the plurality of groups cannot be maintained (see lines 34-53 of column 24, wherein Choquier teaches determining when to add servers from one group experiencing high load from a group with a lower load).

Choquier fails to teach the service servers are grouped depending on quality levels of the rendered services and an intermediate service group that operates on low level services at a normal time and shifts to another group during the time of increased activity and returns to the original level after the increased activity period, wherein the service request with a high service level requirement is preferentially processed while still processing service requests of a low service level requirement.

Goldszmidt teaches, in an analogous system, the service servers are grouped depending on quality levels of the rendered services (see lines 16-18 of column 2, wherein Goldszmidt

teaches dividing the servers based at least in part on a servive

level agreement) and, and intermediate service groups, wherein

the intermediate group offers low level service during a normal

time and reassigning servers between the server groups based

upon the load and level of service (see lines 57-64 of column 6,

note the disclosed method looks to deallocate servers that are

underutilized or providing a low level of service). Goldszmidt

further teaches the service request with a high service level

requirement is preferentially processed while still processing

service requests of a low service level requirement (see lines

13-15, wherein each group maintains a minimum level of service).

Goldszmidt also teaches and returning the shifted to the

original level after the increased activity period (see lines

18-21 of column 5, note the server is "borrowed," implying it is

eventually returned).

    It would have been obvious to one of ordinary skill in the

art at the time of the applicant's invention to modify the

system and method of Choquier with the above teachings of

Goldszmidt in order to more effectively utilize the available

resources and maintain service level agreements as suggested by

Goldzmidt (see lines 34-44 of column 1).

6.   Referring to claim 2, Choquier teaches the plurality of
service servers that are grouped comprise a storing unit storing
information to which group each of the plurality of service
servers belongs (see lines 21-27 of column 9).

7.   Referring to claim 3, Goldszmidt teaches the service
quality includes response time of the service servers (see 41-46
of column 2).

8.   Referring to claim 4, Choquier teaches, the method further
comprises recording and managing a log of service requests (see
lines 33-46 of column 10); and generating a schedule for each
date or day of the week based on the log recorded in the log
managing step, and changing a way of dividing the service
servers into groups according to a generated schedule (see lines
27-35 of column 23).

9.   Referring to claim 5, Choquier teaches each of the
plurality of service servers executes a load measuring step
measuring a load value that a local service requires to process
a service request; and teaches a server is shifted to a
different group based on a load value of each service server,
which is notified from the load measuring step.

Goldszmidt teaches, in an analogous system, the service servers are grouped depending on quality levels of the rendered services (see lines 16-18 of column 2, wherein Goldszmidt teaches dividing the servers based at least in part on a servive level agreement) and, and intermediate service groups, wherein the intermediate group offers low level service during a normal time and reassigning servers between the server groups based upon the load and level of service (see lines 57-64 of column 6, note the disclosed method looks to deallocate servers that are underutilized or providing a low level of service).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the system and method of Choquier with the above teachings of Goldszmidt for the same reasons as mentioned in the rejection of claim 1.

10. Referring to claim 10, Choquier teaches a system providing services over at least one network, comprising:

service servers grouped according to services provided (see lines 36-48 of column 23), however fails to teach the service servers are grouped depending on quality levels or that the service request with a high service level requirement is

preferentially processed while still processing service requests
of a low service level requirement.

     Goldszmidt teaches, in an analogous system, the service
servers are grouped depending on quality levels of the rendered
services (see lines 16-18 of column 2, wherein Goldszmidt
teaches dividing the servers based at least in part on a service
level agreement) and, and intermediate service groups, wherein
the intermediate group offers low level service during a normal
time and reassigning servers between the server groups based
upon the load and level of service (see lines 57-64 of column 6,
note the disclosed method looks to deallocate servers that are
underutilized or providing a low level of service). Goldszmidt
further teaches the service request with a high service level
requirement is preferentially processed while still processing
service requests of a low service level requirement (see lines
13-15, wherein each group maintains a minimum level of service).
Goldszmidt also teaches and returning the shifted to the
original level after the increased activity period (see lines
18-21 of column 5, note the server is "borrowed," implying it is
eventually returned).

     It would have been obvious to one of ordinary skill in the
art at the time of the applicant's invention to modify the
system and method of Choquier with the above teachings of

Goldszmidt in order to more effectively utilize the available
resources and maintain service level agreements as suggested by
Goldzmidt (see lines 34-44 of column 1).

11. Referring to claims 11 and 12, Choquier teaches, a load
shifting unit reducing a load on a selected server within any
group of the service server wherein the load shifting unit
reduces the load on the selected server by shifting a portion of
the load from the selected server to at least one server having
a lightest load (see lines 34-53 of column 24, wherein Choquier
teaches determining when to add servers from one group
experiencing high load from a group with a lower load).
Goldszmidt teaches, in an analogous system, the service servers
are grouped depending on quality levels of the rendered services
(see lines 16-18 of column 2, wherein Goldszmidt teaches
dividing the servers based at least in part on a servive level
agreement) and, and intermediate service groups, wherein the
intermediate group offers low level service during a normal time
and reassigning servers between the server groups based upon the
load and level of service (see lines 57-64 of column 6, note the
disclosed method looks to deallocate servers that are
underutilized or providing a low level of service).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the system and method of Choquier with the above teachings of Goldszmidt for the same reasons as mentioned in the rejection of claim 10.

Response to Arguments

12. Applicant's arguments with respect to independent claims claims 1 and 6-10 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following documents are cited to further show the state of the art as it pertains to the applicant's invenetion:

U.S. Pub. No. 2002/0091854 to Smith teaches a system wherein service servers are allocated based on desired quality of service.

Managing Services in Distributed System by Integrating Trading and Load Balancing, by Dirk Thissen and Helmut Neukirchen teaches a method and system for resource load balancing in a network system based on Quality of Service requirements.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERON J. SORRELL whose telephone number is (571)272-4160. The examiner can normally be reached on Monday-Friday 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on 571-272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Eron J Sorrell/
Examiner, Art Unit 2182
7/24/08